

I/We claim:

1. A land grid array socket, comprising:

an insulative housing having a plurality of contacts,
5 the insulative housing having a top surface for receiving
a land grid array package;

a cover member pivotally mounted on a first end of the
insulative housing, the cover member being pivotal between
an open position and a closed position where the cover
10 member presses the land grid array package toward the top
surface of the insulative housing so that the land grid
array package electrically connects to the contacts;

a lever pivotally mounted on a second end of the
insulative housing, the lever having a locking portion for
15 locking the cover member in the closed position; and

a metallic reinforcing plate positioned on a bottom
surface of the housing, the metallic reinforcing plate
extending between the first end and the second end of the
insulative housing.

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2. The land grid array socket according to Claim 1, wherein
the metallic reinforcing plate includes an interlocking
portion formed to lock the lever.

3. The land grid array socket according to Claim 2, wherein the interlocking portion is integrally formed with the metallic reinforcing plate.

5 4. The land grid array socket according to Claim 1, wherein the metallic reinforcing plate is one-piece and extends along a periphery of the insulative housing.

10 5. The land grid array socket according to Claim 1, wherein the metallic reinforcing plate includes first and second metallic reinforcing members, each of the first and second metallic reinforcing members extending between the first end and the second end and being attached along a side of the insulative housing.

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6. The land grid array socket according to Claim 1, wherein the cover member is pivotally supported by the metallic reinforcing plate.

20 7. The land grid array socket according to Claim 6, wherein the cover member is pivotally supported by a bearing tongue rotatably mounted around an axis of a shaft on which the cover member is mounted.

8. The land grid array socket according to Claim 1, wherein the cover member has a concave upper surface for pressing the land grid array package toward the top surface of the insulative housing.

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9. The land grid array socket according to Claim 8, wherein the upper surface has a larger curvature in an area proximate an opening that accommodates the land grid array package.

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10. The land grid array socket according to Claim 1, wherein the lever is pivotally supported by the metallic reinforcing plate.

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11. The land grid array socket according to Claim 1, wherein the metallic reinforcing plate has projections that are received in mounting slots of the insulative housing to mount the metallic reinforcing plate to the insulative housing.

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12. The land grid array socket according to Claim 11, wherein the projections are heat-pressed into the mounting slots.

13. The land grid array socket according to Claim 12, wherein the projections are formed as swaging portions.

5 14. The land grid array socket according to Claim 1, wherein the insulative housing includes an inner housing for receiving the land grid array package and an outer housing for receiving the metallic reinforcing plate.

10 15. The land grid array socket according to Claim 1, wherein the lever is pivotally mounted on the second end of the insulative housing by the metallic reinforcing member.

15 16. The land grid array socket according to Claim 15, wherein the cover member is pivotally mounted on the first end of the insulative housing by the metallic reinforcing member.

20 17. The land grid array socket according to Claim 1, further comprising a heat sink for mounting on an upper surface of the land grid array package.

18. A land grid array socket, comprising:

an insulative housing having a plurality of contacts, the insulative housing having a top surface for receiving a land grid array package that electrically connects to the contacts;

5 a metallic reinforcing plate positioned on a bottom surface of the housing, the metallic reinforcing plate extending between a first end and a second end of the insulative housing;

10 a lever pivotally mounted on the metallic reinforcing plate, the lever having a locking portion for locking the cover member against the insulative housing; and

 a cover member pivotally mounted on the top surface of the insulative housing, the cover member being pivotally supported by the metallic reinforcing plate.

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19. The land grid array socket according to Claim 18, wherein the metallic reinforcing plate is one-piece and extends along a periphery of the insulative housing.

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20. The land grid array socket according to Claim 18, wherein the metallic reinforcing plate includes first and second metallic reinforcing members, each of the first and second

metallic reinforcing members extending between the first end and the second end and being attached along a side of the insulative housing.

- 5 21. The land grid array socket according to Claim 18, wherein the cover member is pivotally supported by a bearing tongue rotatably mounted around an axis of a shaft on which the cover member is mounted.
- 10 22. The land grid array socket according to Claim 18, wherein the cover member has a concave upper surface for pressing the land grid array package toward the top surface of the insulative housing.
- 15 23. The land grid array socket according to Claim 18, wherein the upper surface has a larger curvature in an area proximate an opening that accommodates the land grid array package.
- 20 24. The land grid array socket according to Claim 23, further comprising a heat sink for mounting on an upper surface of the land grid array package.

25. The land grid array socket according to Claim 18, wherein
the metallic reinforcing plate has projections that are
received in mounting slots of the insulative housing to
mount the metallic reinforcing plate to the insulative
5 housing.

26. The land grid array socket according to Claim 25, wherein
the projections are formed as swaging portions.

10 27. The land grid array socket according to Claim 26, wherein
the swaging portions are heat-pressed into the mounting
slots.

28. The land grid array socket according to Claim 18, wherein
15 the insulative housing includes an inner housing for
receiving the land grid array package and an outer housing
for receiving the metallic reinforcing plate.

29. The land grid array socket according to Claim 18, wherein
20 the cover member is pivotally mounted on the first end of
the insulative housing by the metallic reinforcing member.

30. The land grid array socket according to Claim 18, wherein the metallic reinforcing plate includes an interlocking portion integrally formed with the metallic reinforcing plate to lock the lever.

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31. The land grid array socket according to Claim 30, wherein the lever includes a rotatably-supported portion which is rotatably supported by the metallic reinforcing plate, an actuating portion bent at a predetermined angle away from the rotatably-supported portion, and a shaft extending from the rotatably supported portion to the actuating portion, the actuating portion having a length which is sufficient to allow displacement of the shaft when the actuating portion is disengaged from the interlocking protrusion.

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32. The land grid array socket according to Claim 31, wherein the metallic reinforcing member has space for accommodating the shaft when the shaft is displaced.

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33. The land grid array socket according to Claim 32, wherein the actuating portion forms an obtuse angle with the shaft.

34. The land grid array socket according to Claim 33, wherein the actuating portion forms a right angle with the rotatably-supported portion.

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